

BOTANIC DESCRIPTION

Crotalaria goodiaeformis is a bushy shrub or subshrub up to 2.6 m tall. Branches slender, appressed or spreading pubescent, glabrescent; bark pale brown, conspicuously lenticillate.

Leaves 3-foliolate; leaflets broadly oblanceolate, elliptic or obovate, up to 15-55 mm long, 5-30 mm wide, sparsely appressed pilose on both surfaces; petiole up to 12-45 mm long. Stipules filiform up to 2mm long caducous.

Racemes lax, with few flowers on the very slender rachis; bracts filiform, 1-3 mm long; bracteoles inserted just below the calyx, linear, ascending and sometimes curved, up to 6 mm long. Calyx 8-10 mm long, sparsely appressed pilose; lobes narrowly attenuate-triangular, twice as long as the tube. Standard suborbicular, yellow or orange, marked and veined purple at the base inside and sometimes outside, usually puberulous along the midvein outside; wings longer than the keel.

Pods shortly stipitate, oblong-clavate, 20-40 mm long, 8-10 mm across, thinly spreading pubescent, 14-16 seeded.

Seeds oblique cordiform, 4-5 mm long, slightly rugulose, dark brown, sometimes mottled greenish-brown.

The species shows a wide phenotypic variation because of its wide habitat distribution. It is becoming rare in its natural habitat in Kenya. The genus name 'Crotalaria', meaning rattle, is indicative of the noise made by the seeds shaken in the mature pods.

BIOLOGY

C. goodiaeformis is hermaphroditic, its flowers are insect pollinated.

ECOLOGY

C. goodiaeformis is found in margins and clearings of lowland and upland rain forest, dry evergreen forest, deciduous woodland, wooded grassland and bushland. It also persists on abandoned cultivations, especially in hedges.

BIOPHYSICAL LIMITS

Altitude: 75-2 100 m

DOCUMENTED SPECIES DISTRIBUTION

Native: Democratic Republic of Congo, Kenya, Mozambique, Tanzania

Exotic:



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS

Fodder: The leaves are important as cattle fodder in dry lowland areas (900m above sea level) of Kenya. Leaves have a high protein but low ash content.

Fuel: Twigs can be used as firesticks.

Medicine: Root decoction administered for stomach ache and hookworms.

SERVICES

Erosion control: Protects surrounding soil from erosion.

Soil improver: Leaf litter from the shrub enhances soil fertility.

TREE MANAGEMENT

The tree is frequently coppiced or uprooted for fodder and has a good survival, planting in shaded conditions improves survivability. Recommended spacing for *C. goodiaeformis* is between 45 and 90 cm.

FURTHER READING

Gillet JB et al. 1971. Leguminosae (Part 4), Sub-family Papilionoideae (Part 2). In: Flora of Tropical East Africa. Crown Agents, London, UK.

Kokwaro JO. 1976. Medicinal plants of East Africa. East African Literature Bureau.

Mason V and Roothaert R. 1997. Indigenous fodder species in Kenya - propagating the wealth. *Agroforestry Today*. 9(1):16-18.

Roothaert RL, Arimi HK and Kamau EN. 1997. Improving indigenous fodder trees and shrubs in Kenya.

Roothaert RL. 2000. The potential of indigenous and naturalized fodder trees and shrubs for intensive use in central Kenya. PhD. Thesis, Wageningen University, The Netherlands.

SUGGESTED CITATION

Orwa C, Mutua A , Kindt R , Jamnadass R, Simons A. 2009. Agroforestry Database:a tree reference and selection guide version 4.0 (<http://www.worldagroforestry.org/af/treedb/>)